

Seventh Grade Math Pacing Guide, 2011– 2012

	September	October	November	December	January	February	March	April	May	June
Week 1	Students are in session Thursday & Friday only. Supply list are handed out. Diagonstic & Placement	Topic: -Subtracting Integers (Keep Change Change) -Multiplying Integers -Dividing Integers 7.N.12 7.N.13 POW Weekly Assessment	Benchmark Qtr.2 Topic: -Translating Verbal Sentences into Algebraic Equations. -Solving and Checking One Step Equations with addition and subtraction using inverse operations. 7.A.1 7.A.4 6.A.3 6.A.4 POW Weekly Assessment	Topic: -Solve, graph, and check one step inequalities Adding, Subtracting, Multiplying, and Dividing -Solve, graph, and check two step inequalities. 7.A.5 7.G10 POW Weekly Assessment	Topic: -Surface Area of a Cylinder -Volume of Prisms - Volume of Cylinders 7.G.2 POW Weekly Assesement	Benchmark Quarter 3 Topic: -Calculate radius or diameter given circumference or area -Find the missing angles of a quadrilateral 7.G.1 7.A.5 7.G.10 7.G.7 POW Weekly Assessment	Topic: -Read and interpret data represented graphically -Determine appropriate graphs to display data – (pictograph, bar graph, line graph, histogram, circle graphs) -Create double-bar and double-line graphs 7.S.3 7.S.6 6.S.4 POW Weekly Assessment	Benchmark Qtr. 4 Topic: Measurement -Convert capacities and volumes within a given system – customary and metric -Mass- tools and technique -Relative error 7.M.2 7.M.9 7.M.10 POW Weekly Assessment Spring Break Packet-Acuity	Topics: -Graph on a coordinate plan -Find slope. -Find y-intercept. 7.A.7 7.A.8 8.A.4 POW Weekly Assessment	Topic: -Calculate unit price using proportions -Compare unit prices 7.M.5 7.M.6 POW Weekly Assessment

<p>Week 3</p>	<p>Topic:Review 6th Grade</p> <p>-Review of Simplifying Fractions</p> <p>-Review of Fractions and decimals</p> <p>Least Common Multiple</p>	<p>Topic:</p> <p>-Recognize the difference between rational; and irrational numbers</p> <p>-Square Root of perfect and non-perfect squares.</p> <p>-Scientific Notation</p>	<p>*Thanksgiving Week*</p> <p>Topic:</p> <p>-Combining Like Terms.</p> <p>-Solving Equations using the Distributive Property.</p>	<p>Topic:</p> <p>-Surface Area of Rectangular Prisms</p> <p>-Review Area and Circumference circles(leave in terms of pi)</p>	<p>Topic:</p> <p>--Solving Ratios (including equivalent) and Proportions by Using Cross Products</p> <p>-Convert Units of Measurement (Capacity, Volume, and Mass) by Using a Proportion</p> <p>-Graphing on a Coordinate plane to decide the Proportional Relationship of Quantities</p>	<p>Mid Winter Recess</p>	<p>Topic:</p> <p>-Interpret data, predictions, experimental probability</p> <p>-Sampling methods to predict outcomes</p> <p>-Design and conduct experiments to test predictions</p>	<p>Review Week</p>	<p>Topic:</p> <p>-Build a Pattern to develop a rule for determining the sum of the interior angles of polygons.</p> <p>7.A.9</p>	<p>Topic:</p> <p>-Getting Ready for grade 8</p> <p>-Adding /Subtracting/ Multiplying Integers</p> <p>-Develop the Laws of Exponents for multiplication and division</p>
	<p>7.N.8</p> <p>7.N.9</p>	<p>7.N.2</p> <p>7.N.5</p> <p>7.N.6</p> <p>7.N.7</p> <p>7.N.15</p> <p>7.N.16</p> <p>7.N.18</p>	<p>7.A.2</p> <p>7.A.3</p>	<p>7.G.1</p> <p>7.G.4</p>	<p>6.A.5</p> <p>7.M.2</p> <p>7.M.3</p> <p>7.M.4</p>		<p>7.S.8</p> <p>7.S.9</p> <p>7.S.11</p>		<p>POW Weekly Assessment</p>	<p>7.N12</p> <p>7.N13</p> <p>8N1</p>
	<p>POW Weekly Assessment</p>		<p>POW Weekly Assesemnt</p>	<p>POW Weekly Assessment</p>	<p>POW Weekly Assessment</p>		<p>POW Weekly Assessment</p>			<p>POW Weekly Assessment</p>
				<p>Christmas Packet-Acuity Online</p>	<p>POW Weekly Assessment</p>					

Week 4	Topic: -Absolute Value -Comparing and Ordering Integers -Adding Integers Different variations towards getting to the rules- counters, number line, and real life examples. 7.N.1 7.N.3 7.N.11 7.N.12 7.N.13 POW Weekly Assessment	Topic: -Translating Verbal Sentences into Algebraic Expressions -Evaluating Expressions (formulas) using Substitution Review First Quarter Topics Quarterly Exam #1 7.A.1 6.A.2 POW Weekly Assessment	Topic: -Solving and Checking Equations with Variables on Both Sides of the Equation. -Writing and Graphing Simple Inequalities 7.A.4 7.A.5 7.G10 POW Weekly Assessment	*Christmas Break*	Topic: -Rate and Unit Rate -Calculate Unit Price Using Proportions -Compare Unit Prices 7.M.5 7.M.6 POW Weekly Assessment Task Quarter Topics Quarterly Assessment #2 Administered	Topic: -Sampling/collecting data -Frequency tables -Choose appropriate measures of central tendency – mean, median, mode -Calculate range of data 7.S.1 6.S.1 6.S.2 7.S.5 7.S.4 POW Weekly Assessment	Topic: -Compare actual results to predicted results -Draw the graphic representation of a pattern from an equation or table -Create algebraic patterns using charts, tables, graphs, equations, expressions 7.S.12 7.A.7 7.A.8 POW Weekly Assessment	NYS Math Test	Topic: -Use proportions to determine the dimensions of similar figures. -Calculate distance using a map scale. 7.M.1 Review Fourth Quarter Topics Quarterly Exam #4	Review Intro to polynomials- Identifying Polynomials 7A3 Final

Technology	Examview	glencoe.com iteachiilearn-compass learning http://illuminations.nctm.org/ BrainPOP TeacherWorks	glencoe.com iteachiilearn-compass learning http://illuminations.nctm.org/ BrainPOP Teacher Works	glencoe.com Calculators Compass learning lesson-video http://illuminations.nctm.org/ BrainPOP Teacher Works Acuity Online	glencoe.com Examview Compass Learning http://illuminations.nctm.org/ BrainPOP Teacher Works Acuity Online	Acuity Online glencoe.com Examview Compass Learning http://illuminations.nctm.org/ BrainPOP Teacher Works	Acuity Online glencoe.com Examview Compass Learning http://illuminations.nctm.org/ BrainPOP Teacher Works	Acuity Online glencoe.com Examview Compass Learning http://illuminations.nctm.org/ BrainPOP Teacher Works	Acuity Online glencoe.com Examview Compass Learning http://illuminations.nctm.org/ BrainPOP Teacher Works	Acuity Online glencoe.com Examview Compass Learning http://illuminations.nctm.org/ BrainPOP Teacher Works
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<p>Differentiated Instruction</p> <p>ELL</p> <p>SN</p> <p>SS</p>	<p>Assessment Modifications-</p> <p>-Time & ½</p> <p>-Double Time</p> <p>Use of counters to help students identify the rules when adding or subtracting integers</p> <p>Make a vocabulary chart based on words that will determine whether an integer is positive or negative. For example: deposit, withdraw, etc.</p> <p>Foldables Student Built Glossary</p>	<p>-Differentiated Instruction Visual/Spatial Learners If students are having difficulty completing the Exercises, have them use counters, drawings, or number lines to represent the addition, subtraction, multiplication, and division of integers</p> <p>-Build Vocabulary charts based on translating verbal expressions</p> <p>Assessment Modifications-</p> <p>-Time & ½</p> <p>-Double Time</p> <p>Foldables Student Built Glossary</p>	<p>Plan ways for ELLs to participate in class and in cooperative learning groups.</p> <p>Assessment Modifications-</p> <p>Give open-book test.</p> <p>-Time & ½</p> <p>-Double Time</p> <p>Provide concrete “real” examples</p> <p>Use a balance scale to balance and solve equations. Use flow charts a backtracking to solve equations.</p> <p>Foldables Student Built Glossary</p>	<p>Building Vocabulary</p> <p>Have students create an inequality table were the words are associated with the corresponding sign.</p> <p>Provide a format for sequencing the steps to finding the surface area of a rectangular prism and a cylinder</p> <p>A good way to help students understand how the different categories of 3 -D shapes are related is to use a graphic organizer</p> <p>Foldables Student Built Glossary</p>	<p>Students having difficulty setting up a correct proportion including a missing value, so they can draw a simple model of the problem, identify the missing value, and then set up the proportion.</p> <p>Assessment Modifications-</p> <p>-Time & ½</p> <p>-Double Time</p> <p>Foldables Student Built Glossary</p>	<p>From Acuity Online Results - level 1 and level 2- Assign work that will allow students to study those particular skills online.</p> <p>Students will find it beneficial to create a reference chart on the vocabulary associated with measures of central tendency. Students can create a reference chart with the titles: Term, Definition, and Example for Data Set.</p> <p>Assessment Modifications-</p> <p>-Time & ½</p> <p>-Double Time</p> <p>Foldables Student Built Glossary</p>	<p>Students may have difficulty choosing the best graph for given data. Make a table with data appropriate for each type of graph for students to use to reference.</p> <p>Assessment Modifications-</p> <p>-Time & ½</p> <p>-Double Time</p> <p>Foldables Student Built Glossary</p>	<p>Have students find commonplace objects that are about 1 inch, 1 foot, 1 yard, 1 mile, etc. Draw pictures on the front of the index card and show equivalents on the back.</p> <p>Assessment Modifications-</p> <p>-Time & ½</p> <p>-Double Time</p> <p>Foldables Student Built Glossary</p>	<p>Compare the concept of equivalent fractions to proportions and equal ratios with students. Help students to see the connection between the two.</p> <p>Assessment Modifications-</p> <p>-Time & ½</p> <p>-Double Time</p> <p>Foldables Student Built Glossary</p>	<p>With integers, have students determine whether the number is positive or negative by looking first to the sign of each number and identifying it.</p> <p>Assessment Modifications-</p> <p>-Time & ½</p> <p>-Double Time</p> <p>Foldables Student Built Glossary</p>
<p>AL</p>	<p>Have students relate the factor tree with the GCF and LCM of a given set of numbers. Have students create a rule for adding integers using the counters.</p>	<p>Challenge Beyond the Lesson Content</p> <p>Ask students what they the think the cube of a number is. Ask them what they think the cube root of a number is. Have them give examples and relate the concepts to squares and square roots.</p>	<p>Have students solve equations that have solutions that do not have whole numbers. Have students solve equations with fractions.</p>	<p>Have students create there own algebraic inequalities involving two operations.</p> <p>Extend: Explain that when you add or subtract the same number from each side of an inequality, the inequality also remains true.</p>	<p>Challenge: Have students create their own word problems involving proportions.</p>	<p>Have students apply skills to real life situation. Ask students to generate a plan to take a sample to collect data related to a school issue. Students will describe the kind of sample they would take and how they would collect and analyze the data.</p>	<p>Have students describe the advantages and disadvantages of each graph format.</p>	<p>Challenge students to make up several word problems using these units of length to measure familiar objects and distances.</p>	<p>Students can use their creative skills to design their own scale drawings. They can work in groups to design a recreation drawing and prepare a scale drawing.</p>	<p>Have students write their own word problems and equations involving increases and decreases in temperature.</p>

Standards are listed under each initial topic heading.
Memory and Reasoning Standards are not listed because they spiral throughout the lessons.

Note: M = Monday, T = Tuesday, W = Wednesday, Th = Thursday, F = Friday
Note: ELL= English Language Learners AL= Above or Beyond Grade Level SS= Struggling Students SN= Special Needs